CH 113 – Certification Schemes (Spring 2009)

Certification Schemes (short written assignment): There are a number of government and private programs that motivate companies to produce more environmentally friendly products. The goal of this assignment is to explore the question “what tools does society use to drive product design and production to be greener?” The assignment will consist of a short paper that answers a series of questions regarding certification schemes for a product or production process of your choice. Throughout the term, we will use a Blackboard discussion forum to explore the impacts (both positive and negative) of certification schemes. Learning facilitated by this activity will be assessed during the final exam. The written assignment for this project is due at midnight on Thursday, June 4th.

A partial listing of existing certification programs include:

- **Green Seal**: certification focuses on chillers, cleaners, paints and coatings, windows and doors.
- **Environmentally Preferable Products**: certification applies to carpet face, fiber, broadloom and tile and flooring management systems.
- **Green Label Plus**: certification applies to carpets, adhesives and cushion materials.
- **ISO14020 and 14024**: standards for eco-labeling set by the International Organization for Standardization (ISO), the US Environmental Protection Agency, Global Eco-labeling Network.
- **Energy Star**: a government-backed program that helps businesses and consumers protect the environment through energy efficiency.
- **Green Guard**: mission is to improve public health and quality of life through programs that improve indoor air quality.
- **Electronic Product Environmental Assessment Tool (EPEAT)**: certification system for computers and monitors.

Assignment Details: Choose a product or process that is part of an existing certification scheme. Answer the following questions for your product or process.

- What is your product and why is there a need for a green certification process?
- Summarize the certification process or scheme for your product or material (50 – 100 words)
- How are the claims regarding certification verified?
- What aspect of the life cycle of the product does the certification program target? (design, production, end of life).
- What is the composition of your product?
- What classes of chemical products does the certification scheme target (e.g., polymers, biotech, nano, inorganic)
- Describe a chemical success story that showcases a specific example where significant amounts of waste have been eliminated or product safety has been improved and how certification process facilitated this change.